

Title (en)

Fluoropolymer pump diaphragm with integral piston stud

Title (de)

Fluoropolymerpumpmembran mit integriertem Kolbenschaft

Title (fr)

Membrane de pompe en polymère fluoré avec tige de piston intégrée

Publication

EP 1058005 A2 20001206 (EN)

Application

EP 00111751 A 20000602

Priority

US 32511499 A 19990603

Abstract (en)

A pump diaphragm (110) includes a layer (12) fabricated from polytetrafluoroethylene (PTFE) and an integral stud (16). In one embodiment, the stud (16) is encapsulated within a hub assembly fabricated from PTFE and fastened to the PTFE layer with adhesive or welding, etc. In alternate embodiments, the stud (16) may be molded in-situ with the PTFE layer using various methodology, including pressing the stud onto a heated PTFE layer. The PTFE layer (12) then may be subjected to various forming operations to provide the diaphragm (110) with desired dimensions and/or properties. Moreover, an additional layer or layers, such as an elastomeric layer (14), may be laminated onto an inside surface of the PTFE layer (12) to provide a composite pump diaphragm (110). <IMAGE>

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F04B 43/00

IPC 8 full level

F04B 43/00 (2006.01)

CPC (source: EP US)

F04B 43/0054 (2013.01 - EP US); **F05C 2225/04** (2013.01 - EP US)

Citation (applicant)

- **US 15905998 A 19980923**
- **US 4130535 A 19781219** - CORAN AUBERT Y, et al

Cited by

EP1518656A1; EP1128065A3; EP3382238A1; CN109367145A; US10640621B2; US9057366B2; WO2011103890A1

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